BISS Biodiversity Information Science and Standards

Biodiversity Information Science and Standards 3: e35474
doi: 10.3897/biss.3.35474

OPEN ACCESS

Conference Abstract

Sharing Species Pages in the Atlas of Living Costa Rica using Plinian Core

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Received: 15 Apr 2019 | Published: 13 Jun 2019

Citation: Vargas M, Mora Cross M, Cuadra J, Ulate Rodríguez W (2019) Sharing Species Pages in the Atlas of Living Costa Rica using Plinian Core. Biodiversity Information Science and Standards 3: e35474. https://doi.org/10.3897/biss.3.35474

Abstract

The Atlas of Living Costa Rica (www.crbio.cr) is a biodiversity data portal based on the Atlas of Living Australia (ALA) and managed by the Biodiversity Informatics Research Center (CRBio) and the National Biodiversity Institute of Costa Rica (INBio). It currently shares nearly eight million occurrence records and more than 5000 species pages about Costa Rican vertebrates, arthropods, molluscs, nematodes, plants, and fungi. These pages contain information elements pertaining to, for instance, morphological descriptions, distribution, habitat, conservation status, management, nomenclature, and multimedia (Vargas et al. 2018).

In order to fully integrate species pages into the ALA architecture, CRBio is working in the adoption of the Biodiversity Information Explorer (BIE), an ALA module which manages taxonomic and species contents by integrating global resources like EOL or Wikipedia. This adoption includes the required modifications to use the data model of the Plinian Core (https://github.com/tdwg/PlinianCore), a TDWG draft standard registered as an IPT extension, oriented to share species level information from local and regional sources too (Pando 2018). The advancement of Plinian Core has been lead by INBio, the Spanish Node of GBIF (GBIF Spain), the University of Granada (UG, Spain), the Alexander von Humboldt Institute (IAvH, Colombia), the National Commission for the Knowledge and Use of Biodiversity (Conabio, Mexico) and the University of Sao Paulo (USP, Brazil). This group

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reviewed the existing data standards to reuse as many elements as possible and avoid redundancy. Besides the aforementioned, Plinian Core is currently used by other institutions like the Chilean Ministry of Environment.

Plinian Core was designed to be easy to use, self-contained, able to support data integration from multiple databases, and having the ability to handle different levels of granularity. These requirements are the result of actual needs from content creators that, through an iterative process, have yielded a more complete and flexible exchange standard to aggregate biological and non-biological species information, used by others like IBIN, the Indian Bioresource Information Network (Saran et al. 2018). Plinian Core aims to be a component in producing multiple species catalogues developed under specific constraints to serve specific purposes, instead of focusing on a unified platform while facilitating consistent aggregation and re-utilization of information (GBIF.org 2015).

We will present our implementation of the BIE module in the Atlas of Living Costa Rica, following the documented best practices when sharing species level information using Plinian Core. Our demonstration will detail our lessons learned from merging the aforementioned 5000 species pages provided by INBio with several thousand of species pages assembled from the information provided by the World Flora Online through the aggregation of different Flora resources, like Manual de Plantas de Costa Rica (Hammel et al. 2003) that provides 5,000 plants descriptions and 350 vernacular names (http://www.worldfloraonline.org/resource?query=Manual+de+Plantas+de+Costa+Rica).

Keywords

Atlas of Living Australia, living atlases, species pages, Plinian Core

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